XB15M 5, 10, 15 & 21 joule metallic xenon beacon range

Ex db, weatherproof
Hazardous locations, ordinary locations

UL universal base with lacquered lens

ATEX/IECEx/ INMETRO universal base with lens cover

Overview

These certified beacons have been designed for use in potentially explosive atmospheres and harsh environmental conditions. The enclosures are suitable for use offshore or onshore.

The latest addition to the XB15 flagship beacon range aligns with the GRP universal base for greater application flexibility and simplified ordering.

Improved standard features include a customer-removable guard, upgraded mounting hardware, and swappable lens covers† to reduce spares inventory and enable easy relocation. Users can select the appropriate lens colour to indicate procedures, processes underway, or emergency alerts.

The housings are manufactured from 316L stainless steel or LM25TF marine-grade aluminium. Stainless steel screws and a mounting backstrap are incorporated ensuring durability in the field.

As well as the standard worldwide certificates, SIL 2 is available.

Certifications

- Zones 1, 2, 21 & 22

- Ex db IIC, T3/T4/T5/T6

- ATEX certified, Ex II 2GD

- IECEx certified Gb, Db

- UL certified for USA and Canada:
    - Hazardous locations:
        - Class I, Div. 2, Groups A, B, C & D
        - Class II, Div 2 Groups F & G
        - Class I, Zone 1, AExd IIC T4/T5/T6
    - Ordinary locations: visual-signal device
    - Marine listed
    - Conforms to ULC regulated power supplies

- ULC certified to Canadian Safety Standards

- INMETRO certified

- SIL 2 certified

- IP66 & IP67

Features

- Certified temperature from –55°C to +85°C (–67°F to +158°F)*

- 5, 10, 15J & 21J versions available

- 21J dual tube option available

- Pipe mount or direct mount

- 316L stainless steel or LM25TF aluminium

- Four wire and supervisory diode

- Optional remote initiate (installer configurable, telephone or 24Vdc)†

- Removable stainless steel backstrap

- Swappable coloured lens covers†

- Removable wire lens guard

- Improved inrush current characteristics

- Consistent extreme temperature start-up

- Automatic synchronisation option

- LED version available (see datasheet dsmc0028 for LD15)

- GRP version available (see datasheet dsmc0022 for XB15)

*For full temperature and T-ratings, see specification table
†Lens cover and remote initiate is ATEX, IECEx and INMETRO only

ATEX IECEx c UL us ULC LISTED INMETRO

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Certifications

ATEX Ex db	Cert. no. Baseefa 04ATEX0009X Certified to: EN IEC 60079-0, EN 60079-1, EN 60079-31 Ex II 2 GD Ex db IIC T3/T4/T5/T6 Gb, Ex tb IIIC T200°C/T135°C/T100°C/T85°C Db
IECEx Ex db	Cert. no. IECEx BAS 05.0048X Certified to: IEC 60079-0, IEC 60079-1, IEC 60079-31 Ex db IIC T3/T4/T5/T6 Gb, Ex tb IIIC T200°C/T135°C/T100°C/T85°C Db
UL/ULC Haz Locs	Cert. no. E187894 Class I, Div 2, Groups A, B, C & D Class II, Div 2, Groups F & G Class I, Zones 1, AExd IIC T4/T5/T6
UL/ULC Ord Locs/Marine	Cert. no. S8128. Visual signal appliance UL1638. CSA C22.2 no. 205-12
INMETRO Ex db	Ex db IIC T3/T4/T5/T6 Gb, Ex tb IIIC T200°C/T135°C/T100°C/T85°C Db
SIL	SIL2 certified to IEC61508. Cert number FSP 12004. (21J pending)

Specifications

Material	Body: stainless steel 316L or aluminium alloy LM25TF Lens: borosilicate glass Lens cover: polycarbonate (ATEX, IECEx and INMETRO only) Backstrap: stainless steel 316L Wire guard: stainless steel wire 316L Certification label: polymer
Finish	Universal lens cover ring may be painted to customer specification. Body is always black.
Lens colour	UL orders will be provided with a lacquered lens and excludes magenta. ATEX and IECEx orders will be provided with an interchangeable polycarbonate lens cover.
Voltage	24, 48Vdc, 110-120Vac (50/60Hz) or 220-240Vac (50Hz)
Tube energy	5,10, 15 and 21 joule. 21 joule dual tube also available.
Tube life	>1 x 10^6 flashes
Flash rate	60, 80, 120 fpm
Certified temp ATEX, IECEx and INMETRO	21J: -55°C to +85°C (T3), to +60°C (T4) 15J: -55°C to +85°C (T3), to +65°C (T4), to +70°C (T4) DC 10J: -55°C to +85°C (T3), to +75°C (T4), to +40°C (T5), to +80°C (T4) DC, to +45°C (T5) DC 5J: -55°C to +85°C (T4), to +55°C (T5), to +40°C (T6), to +65°C (T5) DC, to +50°C (T6) DC
Certified temp UL, CCC Ex + GB	15J: -55°C to +65°C (T4), to +70°C (T4) DC 10J: -55°C to +70°C (T4), to +40°C (T5), to +45°C (T5) DC 5J: -55°C to +70°C (T4), to +55°C (T5), to +40°C (T6), to +65°C (T5) DC, to +50°C (T6) DC
Certified temp SIL 2	-50°C to +70°C (-58°F to +158°F)
Weight	Aluminium: 2.5kg (5.5lbs); stainless steel: 4.75kg (10.5lbs)
Ingress protection	IP66 & IP67
Entries	Direct mount: 2x M20 with 1x SS316 plug (side) Direct mount: 2x ¾" NPT with 1x SS316 plug (side) Pipe mount: 2x ¾"NPT (side) + 1x ¾"NPT (base) with 2x SS316 plugs Pipe mount: 1x 3/4" NPT (bottom) Other entry configurations available upon request.
Terminals	12 x 2.5mm²/14AWG unless pipe mount: 8 x 2.5mm²/14AWG
Earth continuity	Fitted as standard to ATEX and IECEx units (M20 and M25 threads). Not applicable for UL (NPT threads).
Remote initiate	Telephone: operates from ringing voltage (default). Relay: operates with 24Vdc activation (selected by link position). Remote initiate options not available with UL certification.
Certification labels	Certification labels always affixed to the base. IECEx, UL & CSA-approved high-durability, laser-marked polymer. Stainless steel 316 labels available as option 'C'.
Tag/duty labels	Optional. Tag & duty labels, if required, attach to the wire guard as swing tags and are packed separately to be attached on-site at point of installation. If tag and duty labels are required, please specify this when placing your order using the below part numbers: Single-sided tag: PX99904125 Single-sided duty: PX99904126 Double-sided duty/tag: PX99904127
Synchronization	Up to 6 beacons on a loop can synchronise without the need for an external controller. Beacons will need to be the same flashrate and need the A code selected in the options.
EOL Resistor	Customers may fit a monitoring resistor to DC units. The maximum total power dissipation through the resistor must be limited to 2W. Please see the technical manual for further details.

Electrical ratings

Energy	Current at Nominal Voltage (Max.) mA			
	24Vdc (16-33V dc)	**48Vdc** (33-58V dc)	**120V ac 60Hz** (99-132V ac)	**240V ac 50Hz** (207-264V ac)
5J	380	170	135	70
10J	690	350	230	115
15J	920	480	265	150
21J*	1148	598	360	200

*UL and ULC certification not available for 21J version

Light outputs

Light output - effective candela*

	5J	**10J**	**15J**	**21J**
Effective (cd)	277	732	873	1338

*Data represents clear lens at optimum voltage @60fpm

UL/ULC rated light output (tested to UL 1638/ULC-S526-07)

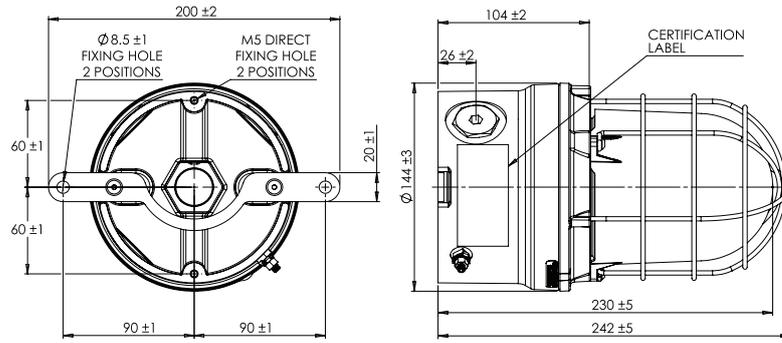| Effective (cd) (60fpm)	24Vdc (@16Vdc)	48Vdc (@38.4Vdc)	120Vac (@96Vac)	240Vac (@192Vac)
5J	10.8*	9*	13*	14*
10J	31.5	31.5	22.5	21
15J	49.5	63	23.3	25.5
21J	N/A	N/A	N/A	N/A

*Less than 15cd is not suitable for public mode.
Tested in worst-case operating conditions with no guard.

Multiplying factors for coloured lenses

tested with cover lens

Red	Blue	Amber	Green	Yellow	Magenta
0.16	0.35	0.58	0.15	0.73	0.10

tested with lacquered glass (UL/ULC only)

Red	Blue	Amber	Green	Yellow	Magenta
0.2	0.27	0.36	0.24	0.65	N/A

ATEX, IECEx and INMETRO certified universal base with lens cover

Certification codes: AJ, DM, W

200 ±2
Ø 8.5 ±1 FIXING HOLE 2 POSITIONS
M5 DIRECT FIXING HOLE 2 POSITIONS
60 ±1
60 ±1
20 ±1
90 ±1
90 ±1

104 ±2
26 ±2
CERTIFICATION LABEL
Ø 144 ±3
230 ±5
242 ±5

UL/ULC certified universal base with lacquered lens

Certification codes: AJU, UL, UW

[7.874in ±0.079]
200mm ±2
[0.335in ±0.039] Ø 8.5mm ±1 FIXING HOLE 2 POSITIONS
M5 DIRECT FIXING HOLE 2 POSITIONS
[1.416in] 36mm ±1 A/F
[2.362in ±0.039] 60mm ±1
[2.362in ±0.039] 60mm ±1
[3.543in ±0.039] 90mm ±1
[3.543in ±0.039] 90mm ±1
[0.787in ±0.039] 20mm ±1

[4.085in ±0.079] 104mm ±2
[1.024in ±0.079] 26mm ±2
CERTIFICATION LABEL
[5.709in ±0.118] Ø 145 ±3
[9.044in ±0.197] 230mm ±5
[9.525in ±0.197] 242mm ±5
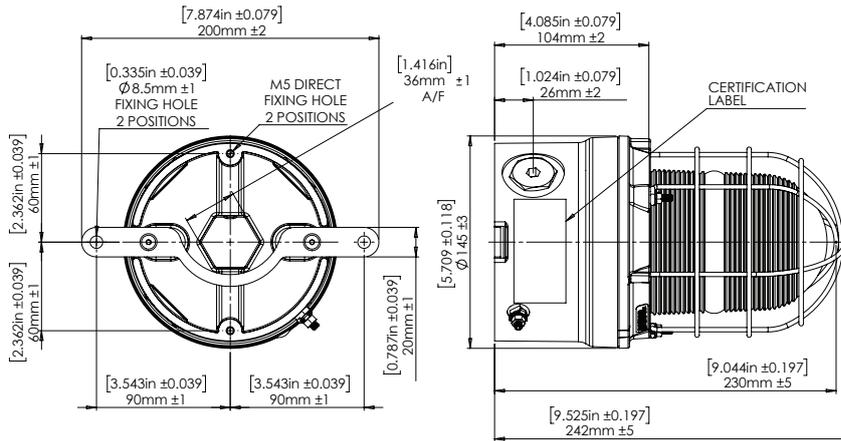
Ordering requirements

The following code is designed to help in selection of the correct unit. Build up the reference number by inserting the code for each component into the appropriate box.

Model	Material	Certification	Voltage	Tube energy	Flashrate	Lens colour	Lens guard	Entries	Options	Finish
XB15M							W			

Material	Code
Stainless steel	S
Aluminium	A

Certification	Code
Dual ATEX/IECEx	AJ
Triple ATEX/IECEx/UL	AJU
UL	UL
UL(ordinary locations)	UW
INMETRO	DM
Weatherproof	W

Voltage	Code
24Vdc	024
48 Vdc	048
110-120Vac	110
220-240Vac	230

Energy	Code
5 Joule	05
10 Joule	10
15 Joule	15
21 Joule	21*
21J Dual Tube	21D*

* Only available in ATEX/IECEX and weatherproof

Flashrate	Code
60/min	06
80/min	08
120/min	12

Lens	Code
Red	R
Blue	B
Green	G
Amber	A
Yellow	Y
Magenta	M
Clear	C

UL orders will be supplied with a lacquered lens and no lens cover.
§Magenta not available with UL.

Guard	Code
Wire	W

Entries	Code
2x M20 with 1x SS316 plug (side)	A
2x ¾"NPT (side) + 1x ¾"NPT (base) with 2x SS316 plugs	C
2x ¾" NPT with 1x SS316 plug (side)	E
1x ¾" NPT (bottom)	P

For any other configuration, please contact MEDC.

Option	Code
None	N
SS316 cert labels	C
Remote initiate	R†
EOL resistor	E§
Auto sync	A‡

†Available only for ATEX/IECEx. Refer to specifications table for details.
§Please specify.
‡ 24Vdc only and not available in 21J
If tag and duty labels are required, see specification table for full details.

Finish	Code
Black	N
Red	R
Special	S*

Note: finish applies to lens cover ring only, body is always black.
*Please specify.